placed in the same subseries as the latter. This subsection would be characterised as follows:—

§ Psilostegiæ (*Sub-sect. nov.*).—Verticillastra laxiuscula remota. Bracteæ ovatæ. Calyx fauce pilosus. (Nuculae tuberculatae).—Inter Psilonepetas *Benth.* et Macrostegias *Boiss.* quasi mediantes et proximæ Macrostegiis *(Boiss., Flor. Orient.* iv, 638 et 651) anteponendæ.

EXPLANATION OF PLATE III.

Nepeta Bellevii, Prain.

Fig. 1. Bract.
2. Calyx.
3. The same, laid open.
4. Corolla tube.
5. Upper lip of Corolla.
6. Nutlet, external aspect.
7. The same, showing inner face with characteristic horse-shoe shaped *areola*.

VIII.—Noviciæ Indicæ. IV. *Two additional species of* Glyptopetalum.—*By* D. Prain.

[Received 20th April, 1891;—Read 6th May, 1891.]

In a collection of plants from Great Coco, an island thirty miles north of N. Andaman, are complete examples of a species of *Glyptopetalum* nearly related to *G. zeylanicum*, Thw. This plant was previously collected, but only in fruit, either in Tenasserim or the Andamans by Helfer* and an example of the gathering (Helfer n. 1973) was described by Kurz in this *Journal* (vol. xli, [1872], pt. 2, p. 299) as *Euonymus calocarpus*, Kurz. The same plant (specimens also incomplete) has been reported from Kondil (Nicobars) by Calcutta garden collectors, and this gathering, along with a plant from Great Nicobar (Novara 188, Jelinek 245; not represented at Calcutta), has been

* This gentleman, as members are aware, was assassinated in North Andaman; his collections were disposed of in Europe and distributed thence; the circumstances of his decease rendered it impossible to differentiate positively his Tenasserim from his Andamans specimens. Kurz believed this gathering (n. 1973) to be from Tenasserim, and Lawson (*F. B. I.* i, 612) gives the same locality; I am not aware, however, what authority these authors had for this definite decision, the *Herb. Calcutta* specimen on which Kurz based his description yields none.

referred by Kurz in this *Journal* (vol. xlv, [1876], pt. 2, p. 123) to *Euonymus javanicus* Blume.*

As it is necessary to formally remove the plant from the genus to which it has hitherto been referred† the opportunity has been taken of providing a full description ; at the same time a description is given of a second species collected—in fruit—in the Mishmi Mts. by Griffith ; a synopsis of all the species now known precedes these descriptions.

In the four species of which the fruit is known, the dorsal raphe does not terminate at the organic base of the seed but there divides into 3-4 laciniate segments of the same appearance and consistence as the raphe itself ; from the raphe they only differ in being slightly branched and in not quite reaching the hilum. They form a closely adherent

* No opinion can be expressed here regarding the Novara expedition specimens ; no example of *E. javanicus* has hitherto been obtained in the Nicobars by Calcutta collectors.

† It is true that Kurz did not think *Glyptopetalum* Thw. generically separable from *Euonymus* Linn. for in this *Journal* (vol. xliv, [1875], pt. 2, p. 259) he formally relegates it to *Euonymus* (as a section) and in the *Forest Flora of British Burma* (vol. i, [1877], p. 249) he does not accord *Glyptopetalum* even sectional rank. It must also be pointed out that Bentham and Hooker had already (*Gen. Pl.* i, [1862], p. 361) pointed out how slight are the characters—the principal one being the solitary pendulous ovules—that separate *Glyptopetalum* from *Euonymus* ; Baillon also (*Hist. des Plantes*, vi, [1875], p. 1, *footnote*) takes the same view as Kurz. If therefore the views of Kurz and Baillon ultimately prevail this plant will again be known as *Euonymus calocarpus* Kurz.

But while this is the case it will be seen on referring to the place of its publication that Kurz did not recognise in this species an example of his own section *Glyptopetalum*. In the *Flora of British Burma* too the generic description of *Euonymus* given by Kurz implies that the cells of the ovary are at least 2-ovuled—an implication opposed to his own statement (*J. A. S. B.* xliv, pt. 2, 159) as regards *Glyptopetalum sclerocarpum* and, as regards the species under review, incorrect. Kurz's views regarding the generic position of *Glyptopetalum* may therefore, I think, be ignored, and Baillon's authority can hardly be quoted in Kurz's support since that author takes so comprehensive a view of *Euonymus* that he is prepared to merge in it not merely *Glyptopetalum* Thw. but also *Lophopetalum* Wight, a step which Kurz has nowhere proposed. Moreover the genus *Glyptopetalum*, as founded by Thwaites (*Hook., Jour. Bot.* viii, [1856], p. 267), is sustained by Bentham and Hooker (*Gen. Pl.* i, [1862], p. 361), by Hooker and Thwaites (*Enum. Pl. Zeylan.* [1864], p. 73), by Beddome (*Flor. Sylvat.* i, [1874], t. 102), by Lawson (*Flor. Brit. Ind.* i, [1875], p. 612), by Trimen (*Cat. Ceylon Pl.* [1885], p. 18) and by Durand (*Index Gen. Phaner.* [1888], p. 66) ; considering too the large number of species of *Euonymus* proper already described and the ease with which species of *Glyptopetalum* are distinguished from these, it appears inadvisable at present to follow Kurz and Baillon in suppressing the latter genus. The present retention of *Glyptopetalum* moreover disturbs the synonymy of only one species instead of changing that of several.

arillar structure with meridional segments differing in colour from the testa that it overlies. The presence of this arillus proves that the coloured "aril" (which in turn loosely overlies it) is not a *true arillus* but, as Planchon has pointed out as regards the aril of *Euonymus*, an *arillode*.

GLYPTOPETALUM Thwaites.

Characters of *Euonymus* but ovules solitary and pendulous from the apex of the cell.

Cymes shorter than leaves, flowers under 20 *mm. diam.* :—

Fruit quite smooth :—

Peduncles $\frac{1}{2}$ *as long as leaves, cymes lax* 2-3 *times divided;* leaves thinly coriaceous oblong-lanceolate serrate, petals oblong, flowers 12 mm. diam., arillode covering $\frac{3}{4}$ of seed and lobed at the margin ... ... 1. *G. zeylanicum.*

Peduncles very short, cymes dense 1-2 *times divided* :—

Cymes longer than petioles, peduncles longer than pedicels; leaves coriaceous ovate-oblong entire, nerves indistinct, petals oblong, flowers 8 mm. diam., arillode covering $\frac{2}{3}$ of seed and lobed at the margin ... 2. *G. calocarpum.*

Cymes not exceeding petioles, peduncles shorter than pedicels, leaves membranous, ovate-oblong serrate, nerves prominent beneath, arillode hardly covering $\frac{1}{3}$ of seed, margin entire... 3. *G. Griffithii.*

Fruit rough tubercular; peduncles $\frac{1}{2}$ as long as leaves, cymes lax 2-3 times divided, leaves thickly coriaceous, oblong-lanceolate serrate, petals suborbicular, flowers 8 mm. diam., arillode covering $\frac{1}{2}$ of seed, margin sinuate... ... ... 4. *G. sclerocarpum.*

Cymes longer than leaves, flowers over 20 *mm. diam.;* cymes lax once divided, leaves thinly coriaceous, oblong-elliptic entire, petals obovate, flowers 30 mm. diam.; fruit unknown ... ... 5. *G. grandiflorum.*

1. Glyptopetalum zeylanicum *Thwaites.* (*F. B. I.* i, 612).
India australis; Zeylania.

2. Glyptopetalum calocarpum.—(Euonymus calocarpus *Kurz, Jour. As. Soc. Beng.* xli, ii, 299 (1872) et xliv, ii, 159 (1875); *Laws.* in *Hook. f., Flor. Brit. Ind.* i, 609 (1875); *Kurz, For. Flor. Brit. Burma* i, 249 (1877).—E. javanicus *Kurz, Jour. As. Soc. Beng.* xlv, ii, 123 [*Veg. Nicobar.* 19] (1876), *saltem in parte, haudquaquam* E. javanicus *Blume.*)
Tenasserim ?; *Helfer* (n. 1973). N. Andamans; Great Coco, Little Coco, Table island, *Prain.* Nicobars; Kondil, *Calcutta garden collectors.*

Arbuscula glabra ramulis glabris teretibus, *foliis* coriaceis supra viridibus subtus prasinis elliptico-oblongis utrinque cuneatis apice obtusis margine integris nervis 5—6-paribus indistinctis, petiolis brevibus; *cymis* axillaribus vel parum extra-arillaribus paucifloris densioribus pedunculis semel rarius iterumque divisis; pedicellis brevibus; floribus parvis albo-viridescentibus, *calyce* 4-lobo lobis omnibus rotundatis exterioribus interioribus 2-plo minoribus, *corollæ* petalis 4 oblongis obtusis planis prope basin 2-foveolatis; *staminibus* 4 filamentis erectis in disci angulis obtusis insertis, loculis antherarum basi divergentibus; *ovario* pyramidato-tetragono disco affixo stigmate minuto, 4-loculare; ovulis in loculis singulis pendulis anatropis, raphi extrorsa; *capsula* 1—4-sperma rotundata loculicidim dehiscente, *seminibus* oblongis pendulis, arillo laciniato in testa membranacea adhaerente e raphi orto ornatis et arillodio carnoso rubro obtectis; *embryone* intra albumen carnosum orthotropo, cotyledonibus oblongis foliaceis, radicula brevi.

Arbuscula 4—12 metr. alta, *foliis* oppositis 9—16 cm. longis his 6—9 cm. latis, petiolis ·75 cm., *cymis* 3—9-floris pedunculis 20—30 mm. longis, pedicellis 4 mm. longis, *sepalis* exterioribus 1·5 mm. interioribus 3 mm. diam., *petalis* 3 mm. longis latisque, *capsulis* extus viridibus intus pallidis 1 cm. longis his 1—2 cm. latis *seminibus* 8 mm. longis his 7 mm. latis testa aurantiaca, arillo pallido, arillodio rubro 6 mm. alto.

Differs from *G. zeylanicum* by its rounded branches, thicker broader leaves with margins entire, by its much smaller flowers with petals flat and not reflexed at the margin, and by its rather shallower arillode. The true arillus is identical in both and the margin of the arillode is similarly lobed.

3. Glyptopetalum Griffithii.
In montibus Mishmi; *Griffith* (n. 1996).

Arbuscula ? glabra ramulis glabris sub-4-gonis, *foliis* membranaceis læte-virentibus, elliptico-oblongis apice acuminatis basi cuneatis margine parce et minute dentatis, nervis 6—7-paribus subtus prominentibus,

petiolis distinctis ; *cymis* axillaribus paucifloris densis pedunculis semel divisis, pedicellis elongatis ; *floribus* ..... ; *capsula* 1—4-sperma rotundata loculicidim dehiscente ; *seminibus* oblongis pendulis basi tantum arillodio carnoso obtectis ; *embryone* intra albumen carnosum orthotropo, cotyledonibus oblongis foliaceis, radicula brevi.

Arbuscula ? *foliis* oppositis 10—15 cm. longis his 6—9 cm. latis, petiolis 1 cm. longis, *cymis* 3-floris pedunculis 2—4 mm. longis pedicellis 8—9 mm. longis, *sepalis* omnibus 2·5 mm. diam., capsulis extus læte-viridibus intus pallidis 1 cm. longis his 1—2 cm. latis seminibus 8 mm. longis his 7 mm. latis, arillodio 2·5 mm. alto.

This species is well distinguished by its very short cymes with peduncles shorter than the pedicels and by its much shallower arillode. The sepals are all of equal size, the capsules externally are not distinguishable from those of *G. zeylanicum*.

4. Glyptopetalum sclerocarpum *Kurz.* (*F. B. I.* i, 613).
Pegu.

5. Glyptopetalum grandiflorum *Beddome.* (*F. B. I.* i, 613).
India australis.